Protocol Information

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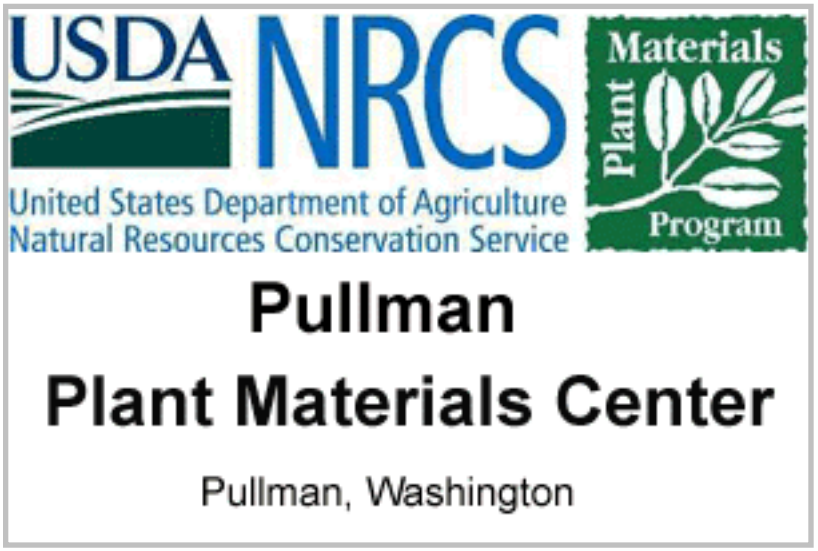

Family Scientific Name:	**Poaceae**
Family Common Name:	**Grass**
Scientific Name:	***Festuca idahoensis* Elmer ' '**
Common Synonym:	**' '**
Common Name:	**Idaho fescue**
Species Code:	**FEID**
Ecotype:	**Paradise Creek drainage near Pullman, WA.**
General Distribution:	**Native to mesic grasslands and open forest over much of temperate western North America from British Columbia south to California and east to New Mexico and Saskatchewan. Mean annual precipitation range is from 12-20 inches (USDA NRCS 2007).**
Propagation Goal:	**Plants**
Propagation Method:	**Seed**
Product Type:	**Container (plug)**

Stock Type:	
Time To Grow:	**4 Months**
Target Specifications:	**Tight root plug in container.**
Propagule Collection:	**Seed ripens in mid-July. It is collected when the inflorescence begins to dry and the seed is in the soft to hard dough stage but before it shatters from the inflorescence. Seed can be stripped from the inflorescence or entire heads may be clipped. Harvested seed is stored in paper bags at room temperature until cleaned. Larger amounts are dried on tarps in a shed and threshed with a plot thresher, then stored in bags in an unheated room until cleaned.**
Propagule Processing:	**Small amounts are rubbed to free the seed, then cleaned with an air column separator. Larger amounts are threshed with a hammermill or a plot thresher, then cleaned with air screen equipment. Clean seed is stored in controlled conditions at 40 degrees Fahrenheit and 40% relative humidity. Seed is light brown in color.** **450,000-520,000 seeds/lb (Hassell et al 1996).** **450,000 seeds/lb (USDA NRCS 2007).**

Pre-Planting Treatments: **Seed germinates readily without pretreatment. Maximum germination of seed from 4 eastern Oregon sites occurred at temperatures between 20 & 25ºC (Doescher et al 1985). Young et al (1981) reported maximum germination with alternating temperatures of 15/20ºC. Idaho fescue seed may have a short after-ripening requirement. Goodwin et al (1995) found germination of seed from central Oregon was greater after seed had been stored for 6 months. They further found a wide variability in germination rates between seed crops from different years, depending on precipitation patterns. Seed from an alpine source in the Olympic National Park in Washington had higher germination after a 1 month after-ripening period (Kaye 1997). For seed lots tested in January over multiple years, unpublished data from the Pullman Plant Materials Center shows higher germination after 1 year for seed stored at 5ºC and 40% relative humidity over seed harvested the preceding summer.**

Growing Area Preparation/ Annual Practices for Perennial Crops:	**In January seed is sown in the greenhouse in 10 cu. in. Ray Leach Super cell conetainers filled with Sunshine #4 and covered lightly. Head space of ¼ to ½ inch is maintained in conetainers to allow deep watering. A thin layer of coarse grit is applied to the top of the planting soil to prevent seeds from floating during watering. Conetainers are watered deeply.**
Establishment Phase:	**Medium is kept moist until germination occurs. Germination usually begins in 6-7 days and is complete in 12-14 days.**
Length of Establishment Phase:	**2 weeks**
Active Growth Phase:	**Plants are watered deeply every other day and fertilized once per week with a complete, water soluble fertilizer containing micro-nutrients.**
Length of Active Growth Phase:	**60-75 days**
Hardening Phase:	**Plants are moved to the cold frame in late March or early April, depending on weather conditions. They are watered every other day if the weather is cool, and every day during hot, dry spells.**
Length of Hardening Phase:	**2-4 weeks**
Harvesting, Storage and Shipping:	
Length of Storage:	

Outplanting performance on typical sites: **Transplanting is done in early May by using an electric drill and portable generator to drill 1.5 inch diameter holes at the planting site. Survival in seed increase plantings without competing vegetation averages 85%. Transplanting into sites with existing vegetation reduces survival and vigor depending on weather conditions following planting.**

Other Comments: **Flowering and seed production occurs 1 year after transplanting. Seed production and seed germination varies widely from year to year.**

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Citation:

Skinner, David M. 2007. Propagation protocol for production of container *Festuca idahoensis* Elmer ' ' plants ( ); Pullman Plant Materials Center, Pullman, Washington. In: Native Plant Network. URL: http://www.nativeplantnetwork.org (accessed 16 February 2007). Moscow (ID): University of Idaho, College of Natural Resources, Forest Research Nursery.